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10/693,655	10/24/2003	Anton Krantz	M1103.70193US00	9660

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EXAMINER	
DUNN, DARRIN D	

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2121	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/693,655	KRANTZ ET AL.	
	Examiner	Art Unit	
	DARRIN DUNN	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44* is/are pending in the application.

4a) Of the above claim(s) *6-7, 20,33, and 43* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,8-19, 21-32, 34-42, and 44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is responsive to the communication filed on 02/27/2008.

2. Claims 1-5, 8-19, and 21-32, and 34-43, and 44 are pending.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5, 8-14, 28-32, and 34-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Melpignano et al. (USPN 2006/0084417 A1).

5. As per claim 1, Melpignano et al. teaches a computing system supporting network selection based upon network information spanning multiple communication media, the system comprising:

a rules data store ([0049], [FIG 3 – network interface 'if' class diagram] for maintaining network selection criteria ([0049-52], [0035] e.g., location, context class, NetworkInterface class (priorities), user preferences, speed, power consumption, mobility profiles, cached information, security, and connection costs) acquired from a plurality of sources ([0039], [0049 – suitable main classes of NISP], [FIG 3 -elements 200, 202, 210, 214] e.g., plurality of sources, not defined, may comprise multiple sources including user preferences, predefined sets or personal policies, and/or classes (AccessPoint, NetworkInterface, and Context) where each class

represents a source of network information pertinent to selecting an appropriate interface);

a media specific module interface ([FIG 1], [0031-multi-mode terminal], [0033]) for providing accumulated network interface information ([0050 – element 202] e.g., plurality of interface cards and associated, class information) potentially spanning multiple communication media ([0033] e.g., data, fax, video, or speech) , the accumulated network interface information being associated with a set of networks (e.g., WLAN, WPAN) and a set of network interfaces ([0033 lines 3-4]), each network interface for connecting the computing system to a network in the set of networks (e.g., connectivity to server via network);

a rules engine ([0049-IfManager] e.g., the NicAgent role is implemented by the IfManager class) for designating one of the set of networks by applying a network selection criterion from the rules data store to the accumulated network interface information potentially spanning multiple media ([0053-55] e.g., IfManager takes care of interface connectivity, management, and selection being performed by choosing the best interface according to context and user preferences. Since the IfManager accesses context, i.e., Context class, the rules engine in effect utilizes one or more classes to select the optimal interface)

6. As per claim 2, Melpignano et al. teaches the computing system of claim 1 wherein the rules engine having has access to the rules data store ([FIG 3], [0054-56])

7. As per claim 3, Melpignano et al. teaches the computing system of claim 2 wherein the media specific module interface (e.g., multi-mode terminal) comprises a normalization module ([0049-MWAL, software interface providing all existing software drivers for network cards) that standardizes communication requests it receives from the rules engine (e.g., IfManager uses the MWAL to control network interfaces) directed to network interfaces.

8. As per claim 4, Melpignano et al. teaches the computing system of claim 3 further comprising a plurality of media specific modules ([0033] , [0050] e.g., interfaces/associated device drivers corresponding to WLAN, WPAN, Bluetooth, IEEE 802.11b, i.e., media specific interface modules. Page 15 line 7 of applicant's instant specification) configured to acquire network interface information ([0050] e.g., fStatus) pertaining to network interfaces associated with particular media types, and to receive network interface configuration commands (e.g., priority) , from the rules engine, to connect to one of the set of networks ([0053-56])

9. As per claim 5, Melpignano et al. teaches the computing system of claim 4 wherein the media specific modules acquire network interface information from media specific drivers associated with particular network interfaces ([0049-50] e.g., it is understood that interface device drivers provide status, capability, and list of reachable access points of the interface card)

10. As per claim 8, Melpignano et al. teaches the computing system of claim 1 wherein the network selection criterion specifies a preference order between at least two media based upon a network parameter associated with the media ([0050] e.g., fPriority)

11. As per claim 9, Melpignano et al. teaches the computing system of claim 1 wherein the network selection criterion specifies a preference order between at least two media based upon a network type associated with the media ([0050] fType)

12. As per claim 10, Melpignano et al. teaches the computing system of claim 1 wherein the network selection criterion specifies a preference order based upon a current location of the computing system ([0052-56] e.g., location is one criteria employed in selecting an interface)

13. As per claim 11 Melpignano et al. teaches the computing system of claim 1 wherein the network selection criterion specifies a preference order between logical networks ([0050] fPriority)

14. As per claim 12, Melpignano et al. teaches the computing system of claim 1 wherein the network selection criterion specifies a preference order based upon a network time of use parameter ([0051] e.g., 'already been visited')

15. As per claim 13, Melpignano et al. teaches the computing system of claim 1 wherein the rules engine is incorporated into a state machine that cyclically scans a set of network interfaces for networks ([0056-57], [FIG 4]), applies the network selection criterion to a set of networks and interfaces to render a current network and interface selection ([0053-57]), and issues configuration instructions in accordance with the current network and interface selection ([0055-57])

16. As per claim 14, Melpignano et al. teaches the computing system of claim 1 further comprising a scanning engine associated with a network interface for controlling the timing of scanning based upon previous scan results maintained in a scanning history ([0057], [0061] e.g., scanning at periodic intervals. A list, i.e., scan history, of access points is maintained)

17. As per claim 28, Melpignano et al. teaches a computer-readable medium including computer-executable instructions for facilitating selecting a network and interface combination, to which a computing system will initiate a connection via the network interface, based upon network information spanning multiple communication media, the computer-executable instructions facilitating:

accessing network selection criteria acquired from a plurality of sources ([0039], [0049 –

suitable main classes of NISP], [FIG 3 -elements 200, 202, 210, 214] e.g., plurality of sources, not defined, may comprise multiple sources including user preferences, predefined sets or personal policies, and/or classes (AccessPoint, NetworkInterface, and Context) where each class represents a source of information pertinent to selecting an appropriate interface;

accumulating network interface information ([0050 – element 202] e.g., plurality of interface cards and associated, class information) potentially spanning multiple communication media ([0033] e.g., data, fax, video, or speech) associated with a set of networks (e.g., WLAN, WPAN) and a set of network interfaces ([0033 lines 3-4]), each network interface for connecting the computing system to a network in the set of networks (e.g., connectivity to server via network); and

designating one of the set of networks and a network interface from the set of network interfaces by applying a network selection criterion to the network interface information potentially spanning multiple media ([0053-55] e.g., IfManager takes care of interface connectivity, management, and selection being performed by choosing the best interface according to context and user preferences)

18. As per claim 29, Melpignano et al. teaches the computer-readable medium of claim 28 wherein the network selection criterion is accessed from a configurable rules data store ([0036] e.g. NISP)

19. As per claim 30, Melpignano et al. teaches the computer-readable medium of claim 28 wherein the computer-executable instructions further facilitate issuing network interface configuration instructions in accordance with the designating step ([0054], [0070-72] e.g.,

connectivity, management, and selection implies that a selected card is configured accordingly. For example, insertion/removal of a card entails a new configuration)

20. As per claim 31, Melpignano et al. teaches the computer-readable medium of claim 28 wherein the accumulating step is facilitated by a normalization module that standardizes communication between a set of media specific modules associated with potentially multiple distinct types of communication media drivers ([0049-MWAL, software interface providing all existing software drivers for network cards) and a rules engine that performs the designating step (e.g., IfManager uses the MWAL to control network interfaces)

21. As per claim 32, Melpignano et al. teaches the computer-readable medium of claim 31 further comprising computer- executable instructions for acquiring, by the media specific modules, network interface information from the communication media drivers associated with particular network interfaces ([0049-50] e.g., it is understood that interface device drivers provide status, capability, and list of reachable access points for a respective interface)

22. As per claim 34, Melpignano et al. teaches the computer-readable medium of claim 28 wherein the network selection criterion specifies a preference order between at least two media based upon a network parameter associated with the media ([0050] e.g., physical characteristics)

23. As per claim 35, Melpignano et al. teaches the computer-readable medium of claim 28 wherein the network selection criterion specifies a preference order between at least two media based upon a network type associated with the media([0050] fType)

24. As per claim 36, Melpignano et al. teaches the computer-readable medium of claim 28 wherein the network selection criterion specifies a preference order based upon a current location of the computing system ([0052] e.g., location)

25. As per claim 37, Melpignano et al. teaches the computer-readable medium of claim 28 wherein the network selection criterion specifies a preference order between logical networks ([0050] e.g. WLAN, WPAN)

26. As per claim 38, Melpignano et al. teaches the computer-readable medium of claim 28 wherein the network selection criterion specifies a preference order based upon a network time of use parameter ([0051] e.g., 'already been visited')

27. As per claim 39, Melpignano et al. teaches the computer-readable medium of claim 28 wherein machine the computer-executable instructions comprises a rules engine for evaluating at least one of the network selection criteria based on the accumulated network interface information ([0053] e.g., IfManager), and further comprising computer-executable instructions for cyclically performing, under the control of a state machine: scanning a set of network interfaces for networks ([0057], [FIG 4]); applying, with the rules engine, the network selection criterion to a set of networks and interfaces to render a current network and interface selection ([0054]); and issuing configuration instructions in accordance with the current network and interface selection ([0054], [0070-72] e.g., connectivity, management, and selection implies that a selected card is configured accordingly. For example, insertion/removal of a card entails a new configuration)

28. As per claim 40, Melpignano et al. teaches the computer-readable medium of claim 28 further comprising computer- executable instructions for initiating network scanning for a designated one or more of the set of network interfaces based at least in part upon a scanning algorithm and previous scan results maintained in a scanning history ([0056- periodically polling], [0057-list of detected access points, i.e., scanning history], [0061- ping procedure, i.e.,

scanning algorithm], [0074 – illustrating detecting new access points and adding to a list,i.e., scan history])

Claim Rejections - 35 USC § 103

29. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

30. Claims 15-19, 21-27, and 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Melpignano et al. (USPN 2006/0084417 A1) in view over Babbar et al. (USPN 2004/0116140 A1)

31. As per claim 15, Melpignano et al. teaches a method for selecting a network and interface combination, to which a computing system will initiate a connection via the network interface, based upon network information spanning multiple communication media, the method comprising:

accessing a network selection criteria acquired from a plurality of sources ([0039], [0049 – suitable main classes of NISP], [FIG 3 -elements 200, 202, 210, 214] e.g., plurality of sources, not defined, may comprise multiple sources including user preferences, predefined sets or personal policies, and/or classes (AccessPoint, NetworkInterface, and Context) where each class represents a source of information pertinent to selecting an appropriate interface)

accumulating network interface information ([0050 – element 202] e.g., plurality of interface cards and associated, class information) potentially spanning multiple communication media

([0033] e.g., data, fax, video, or speech) , the accumulated network interface information being associated with a set of networks (e.g., WLAN, WPAN) and a set of network interfaces ([0033 lines 3-4]), each network interface for connecting the computing system to a network in the set of networks (e.g., connectivity to server via network)s; and

designating one of the set of networks and a network interface from the set of network interfaces by applying a network selection criterion to the network interface information potentially spanning multiple media ([0053-55] e.g., IfManager takes care of interface connectivity, management, and selection being performed by choosing the best interface according to context and user preferences.)

However, Melpignano et al. does not teach that network selection criteria is acquired from at least one of a group policy service. Babbar et al. teaches a service level agreement ([0009] e.g., a group policy is interpreted as an agreement between at least two entities, the agreement providing communication rules between the entities. A contract/agreement pertaining to service provisioning is a group policy)

Therefore, at the time the invention was made, one of ordinary skill in the art would have motivation to provide a service level agreement as part of the network selection criteria. Babbar et al. teaches that mobile users gain access to network services from a terminal. Service level agreements provide enhanced access to services, including cost, reliability, priority, protection from unauthorized access, and system throughput. Melpignano et al. teaches that network selection may be based upon security, costs, data transfer speed, and cached context information. In effect, because service level agreements illustrate additional selection criteria, it would have

been beneficial to acquire network selection criteria, as provided by the service level agreement, as part of selecting an optimal network.

32. As per claim 16, Melpignano et al. teaches the method of claim 15 wherein the network selection criterion is accessed from a configurable rules data store ([0039] e.g., user preferences implies that a user may modify a policy)

33. As per claim 17, Melpignano et al. teaches the method of claim 15 further comprising issuing network interface configuration instructions in accordance with the designating step ([0039 lines 8-11])

34. As per claim 18, Melpignano et al. teaches the method of claim 15 wherein the accumulating step is facilitated by a normalization module that standardizes communication between a set of media specific modules associated with potentially multiple distinct types of communication media drivers ([0049-MWAL, software interface providing all existing software drivers for network cards) and a rules engine that performs the designating step (e.g., IfManager uses the MWAL to control network interfaces)

35. As per claim 19, Melpignano et al. teaches the method of claim 18 further comprising acquiring, by the media specific modules (e.g., interfaces), network interface information from the communication media drivers associated with particular network interfaces ([0049-50] e.g., it is understood that interface device drivers provide status, capability, and list of reachable access points for a respective interface)

36. As per claim 21, Melpignano et al. teaches the method of claim 15 wherein the network selection criterion specifies a preference order between at least two media based upon a network parameter associated with the media ([0050] fPriority, [0036] - NISP)

37. As per claim 22, Melpignano et al. teaches the method of claim 15 wherein the network selection criterion specifies a preference order between at least two media based upon a network type associated with the media ([0050] fType)

38. As per claim 23, Melpignano et al. teaches the method of claim 15 wherein the network selection criterion specifies a preference order based upon a current location of the computing system ([0052] e.g., location)

39. As per claim 24, Melpignano et al. teaches the method of claim 15 wherein the network selection criterion specifies a preference order between logical networks ([0033] e.g., WLAN, PWAN], [0050] e.g., fPriority)

40. As per claim 25, Melpignano et al. teaches the method of claim 15 wherein the network selection criterion specifies a preference order based upon a network time of use parameter ([0051] e.g., 'already visited or not').

41. As per claim 26, Melpignano et al. teaches the method of claim 15 wherein the designating comprises evaluating in a rules engine at least one of the network selection criteria based on the accumulated network interface information ([0053-56]), and the method further comprises cyclically performing, under the control of a state machine: scanning a set of network interfaces for networks ([0057], [FIG 4]); applying, with the rules engine, the network selection criterion to a set of networks and interfaces to render a current network and interface selection ([0054]); and issuing configuration instructions in accordance with the current network and interface selection ([0054], [0070-72] e.g., connectivity, management, and selection implies that a selected card is configured accordingly. For example, insertion/removal of a card entails a new configuration)

42. As per claim 27, Melpignano et al. teaches the method of claim 15 further comprising initiating network scanning for a designated one or more of the set of network interfaces based at least in part upon a scanning algorithm ([FIG 3-element 200, ScanningType) and previous scan results maintained in a scanning history ([0056-57], [0074-76] e.g., lists of AccessPoints, i.e., history)

43. As per claim 41, Melpignano et al, as modified, teaches wherein the plurality of sources of the network selection criteria comprise a user interface ([0039-GUI]) and a group policy service (e.g., supra discussion on claim 15 pertaining to service level agreements)

44. As per claim 42, Babbar et al. teaches the computing system of claim 41 wherein the sources network selection criteria are acquired from include a provisioning service ([0009- Quality of Service provisions relating to the delivery of services and content as part of the service level agreement)

45. As per claim 44, Babbar et al. teaches the method of claim 28 wherein the plurality of sources of the network selection criteria are acquired from include a provisioning service ([0009- ([0009- Quality of Service provisions relating to the delivery of services and content as part of the service level agreement)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DARRIN DUNN whose telephone number is (571)270-1645. The examiner can normally be reached on EST:M-R(8:00-5:00) 9/5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DD
08/14/2008

/Albert DeCady/
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